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09/617,168	07/17/2000	Reinhold Nutz JR.	Serie 5379	7634

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Jeffrey L Wendt
Air Liquide
2700 Post Oak Blvd
Suite 1800
Houston, TX 77056

EXAMINER

LEUNG, JENNIFER A

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 09/29/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/617,168

Applicant(s)

NUTZ ET AL.

Examiner

Jennifer A. Leung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-31 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/17/00 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-30, and further, Subgroup IA, claims 1-16, submitted in paper no. 9 is acknowledged.

In view of Applicant's amendment to claims 17, 22, 29 and 30 to make Groups IB, IC, ID and IE ultimately depend upon claim 1 of Group IA and consist simply of further limitations of the elements of claim 1, the restriction requirement between Groups IA, IB, IC, ID and IE is withdrawn, as Groups IB, IC, ID and IE no longer constitute patentably distinct inventions from the invention of Group IA.

Applicant further traverses the restriction requirement made between Group I, claims 1-30 drawn to an apparatus, and Group II, claim 31 drawn to a method. Applicant argues, "the restriction requirement is submitted to be improper because the method in invention II can obviously not be practiced by hand or by a materially different apparatus." (page 8, last paragraph). However, applicant's argument is not found persuasive, since inventions in an apparatus-method relationship are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus as claimed is not limited to the deposition of carbon black, but can also be used to practice another and materially different process, such as spray coating or depositing silicon, metal oxide or metal alloy onto a substrate, as set forth in the prior Office Action. For the reasons set forth above and in the prior Office Action, the restriction requirement between Group I and Group II is still deemed proper and is therefore made FINAL.

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2. Claim 31 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Claim Objections

3. Claims 12, 17 and 29 are objected to because of the following informalities:
- In claim 12, "lock" (line 2) should be changed to -- block --.
 - In claim 17, "it" (line 6) should be changed to -- its --. Also, "The" (lines 13, 20) should be changed to -- the --.
 - In claim 29, "haves" (line 5) should be changed to -- halves --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2, 3, 5, 7, 8, 14, 16 and 17-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 2 and 3, "quickly removed" is considered vague and indefinite, since "quickly" is a relative term.

Regarding claim 5, it is unclear as to the relationship of "a pilot flame" (line 3) and "a pilot flame" set forth in claim 1, line 3.

Regarding claim 7, it is unclear as to the structural limitation applicants are attempting to positively recite by, "preferably in close proximity", since the term "preferably" is considered vague and indefinite.

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Regarding claim 8, “quick disconnects” is considered vague and indefinite, since “quick” is a relative term. Also, it is unclear as to the structural limitations applicants are attempting to positively recite by, “preferably color-coded”, since the term “preferably” is considered vague and indefinite.

Regarding claim 14, it is unclear as to the relationship of “an automatic ignition system” and “a spark producing means” to “an ignition source” set forth in claim 1, line 5. Also, it is unclear as to what is intended by, “an IS machine” as it is unclear as to the meaning of the acronym “IS”. Also, it is unclear as to the relationship between “an IS machine” of line 5 to “an IS machine” of line 4.

Regarding claim 16, “small sample” is considered vague and indefinite, since “small” is a relative term. Also, “first and second nozzles” (line 2) lacks proper positive antecedent basis.

Regarding claim 17, it is unclear as to the relationship between “a/the hollow tube” (lines 6, 8) and “a first injector” set forth in claim 1. Likewise, “the tube” in claim 20.

Regarding claims 18-21, the phrase, “Nozzle...” of the preamble lacks proper positive antecedent basis, as the claims are directed to an “Apparatus...” set forth in claim 1.

Regarding claim 22, it is unclear as to the relationship between “a main gas block” (lines 2-3) and “a main gas block” set forth in claim 1, lines 4-5. Also, it is unclear as to the relationship between “a highly-carbon-laden gas” (line 5) and “a highly-carbon-laden gas” set forth in claim 1, line 2. Also, the relationship between “a mixture of fuel and oxidant” (line 6) and “a mixture of fuel and oxidant” set forth in claim 1, line 3. Also, “said support section” (line 9) lacks proper positive antecedent basis. Also, “at least one nozzle for depositing carbon black” (lines 9-10) lacks proper positive antecedent basis, since only a single nozzle is set forth in claim

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1, and the intended use “for carbon black” is not previously recited.

Regarding claim 23, “the support section” (lines 1-2) lacks proper positive antecedent basis. Also, “said at least one nozzle” (line 5) lacks proper positive antecedent basis, since only a single nozzle is set forth in claim 1.

Regarding claims 23-29, the phrase, “Head assembly...” of the preamble lacks proper positive antecedent basis, as the claims are direct to an “Apparatus...” set forth in claim 1.

Regarding claim 25, it is unclear as to the relationship between “a spark igniter” and “an ignition source” set forth in claim 1, line 5. Likewise, “the spark igniter” of claim 26, line 4.

Regarding claim 29, it is unclear as to the relationship between, “a T-tongue of a mounting plate” (line 3) and “a removeable head assembly mounting plate comprising a T-tongued plate on a clamp block” set forth in claim 28, lines 2-3.

Regarding claim 30, it is unclear as to the relationship between “an/the electronic controller” (lines 2, 3) and “an IS machine” set forth in claim 14. Also, it is unclear as to the relationship between “a/the spark igniter” (lines 3, 4) and “a spark producing means” set forth in claim 14, or “an ignition source” set forth in claim 1. Also, it is unclear as to the relationship between “an electrical signal” (line 4) and the “electronic connections/controls” set forth in claim 14. Also, it is unclear as to the relationship between “a pilot flame” (line 5) and “a pilot flame” set forth in claim 1. Also, “fuel and oxidant gases” (lines 4, 6) lacks proper positive antecedent basis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 4, 5, 7-12, 14-16, 22, 24, 25 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (U.S. 4,604,120) in view of Nicolas et al. (U.S. 4,412,974) and Tischler (DE 43 11 773).

Regarding claims 1 and 16, Brown discloses an apparatus for spraying a specific lubricant into molds of a glass forming machine, the apparatus comprising: a plurality of spray nozzles (outlets 88; FIG. 4), the nozzles comprising a first injector (defined by elements 76, 79, 77) for injecting a lubricant and a second injector (defined by elements 86, 87) for injecting compressed air, the nozzles 88 being secured to a moveable head assembly (elements 30, 32, 34, 36; FIG. 1-3), wherein the horizontal spray bar 30 of the head assembly defines a main lubricant distribution block -- substantially the recited "main gas block". However, Brown is silent as to whether the nozzle may be used for injecting a highly-carbon-laden gas and a fuel/oxidant mixture, and is further silent as to the apparatus comprising an ignition source for igniting the fuel/oxidant mixture, mounted in a gas plenum that encloses the respective tips of the injectors.

Nicolas et al. (FIG. 1, 2) discloses an apparatus 1 for spraying a lubricant of carbon black C onto a substrate P such as glass-making molds (column 3, lines 47-57), wherein the apparatus comprises a nozzle including a first injector (orifice 9) for injecting a highly-carbon-laden gas

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(acetylene 4) and at least one second injector/jet (heating orifice or nozzle 16/16') for injecting a mixture of a fuel and oxidant (comburant 12; fuel 13), wherein the apparatus is "particularly appropriate for automatic casting plants, for example in which the moulds installed on a rotary or translatable conveyor are filled in turn," (column 2, lines 13-20). The apparatus further comprises an ignition source "...provided by any conventional means which is not shown in the drawings," (column 3, lines 2-4) for igniting the mixture to generate a pilot flame for depositing carbon black. It would have been an obvious design choice for one of ordinary skill in the art at the time the invention was made to provide an ignition source and substitute the nozzle of Nicolas for the nozzle in the apparatus of Brown, to enable the injection of the highly-carbon-laden gas and fuel/oxidant mixture, because use of carbon black as a mold lubricant is well known in the art, as evidenced by Nicolas (column 1, lines 13-17), and the substitution of one known equivalent technique for another may be obvious even if the prior art does not expressly suggest the substitution. *Ex parte Novak* 16 USPQ 2d 2041 (BPAI 1989); *In re Mostovych* 144 USPQ 38 (CCPA 1964); *In re Leshin* 125 USPQ 416 (CCPA 1960); *Graver Tank and Manufacturing Co. v. Linde Air Products Co.* 85 USPQ 328 (USSC 1950). In any event, Nicolas specifically teaches, "... carbon black may be substituted for conventional lubricants," (column 3, lines 47-57). Also, substitution of known equivalent structures involves ordinary skill in the art. *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958).

The collective teachings of Brown and Nicolas are silent as to whether the apparatus may further comprise a gas plenum for enclosing the respective tips of the first and second injectors, and in which the ignition source is mounted.

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Tischler (Figure) discloses an apparatus for spraying a lubricant comprising soot (a.k.a. carbon black) onto a substrate such as the molds found in the glass industry, wherein the apparatus comprises a nozzle (burner head **3**) for injecting a highly-carbon-laden gas (i.e., acetylene, ethylene, propane and similar, via supply line **4**) and an oxidant (i.e., air, via supply line **5**) into a gas plenum (open chamber **14**), wherein an ignition source (ignition device **10**) is mounted in the gas plenum for igniting the gas/fuel and oxidant to create a flame for depositing soot on surface **1** of work piece **W**. It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide a gas plenum for enclosing the injector tips and mounting the ignition source in the modified apparatus of Brown, because the provision of a gas plenum will, "prevent oxygen from the environment from flowing to the combustion process taking place in the chamber," and thus, "it is possible to precisely adjust the combustion process in view of the respective soot application," as taught by Tischler (translation page 3, first paragraph). Also, the plenum allows soot to be guided only to the respective work piece surface.

Regarding claim 4, Brown discloses the head assembly (elements **30, 32, 34, 36**; FIG. 1-3) is removably secured to a funnel arm shaft block (i.e., support boss **40**, fitted on shaft **10**; column 3, line 64 to column 4, line 5).

Regarding claim 5, Brown discloses the head assembly (elements **30, 32, 34, 36**; FIG. 1-3) is equipped with at least two gas supply connections (inlets **71, 81**; column 4, lines 23-41).

Regarding claims 7 and 8, Brown discloses the gas supply connections **71, 81** are connected to gas supply conduits (horizontal bores **72, 82**) which are connected in turn to a gas distribution block or gas panel (i.e., horizontal bar **32** and horizontal spray bar **30** portions of the head assembly; column 4, lines 23-41; FIG. 3).

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Regarding claims 9-11, Brown discloses the head assembly (elements 30, 32, 34, 36; FIG. 1-3) is connected to a head assembly mounting plate, integral to a clamp block (i.e., sleeve 44 and ring 46 of support boss 40, fitted on shaft 10; column 3, line 64 to column 4, line 5; FIG. 2, 6). The mounting plate defines a "T-tongued plate", since sleeve 44 defines the vertical portion of the letter "T" and ring 46 defines the horizontal portion of the letter "T".

Regarding claim 12, Brown (FIG. 2, 3, 6; column 3, line 64 to column 4, line 5) discloses a shaft 10 positioned in a shaft clamp block hole of the clamp block (support boss 40), the clamp block 40 consisting of a collar 42 integral with a sleeve 44 to which it is joined through a ring 46. The lower part of collar 42 is split at 47 and tightened onto shaft 10 by means of clamping bolts 48. Although collar 42 is not split completely, such that block 40 is comprised of two "matching clamp block clamp halves", and although the other recited well known mechanical elements are not shown, it would have been an obvious design choice for one of ordinary skill in the art at the time the invention was made to select an appropriate configuration for the clamp block in the modified apparatus of Brown, on the basis of suitability for the intended use, since substitution of known equivalent structures involves only ordinary skill in the art. *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958).

Regarding claim 14, Brown discloses control of the lubrication cycles with the electronic controller of an IS machine (column 5, lines 20-40). As modified by Nicolas and Tischler above, the apparatus further comprises a spark producing means (Nicolas, "conventional means", column 3, lines 2-4; Tischler, ignition device 10) inserted in said gas plenum. Additionally, Tischler (Figure; translation page 3, last paragraph to page 4, fourth paragraph) teaches an

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electronic controller (control unit **20**) controls the spark producing means **10**. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to additionally control the spark producing means with the electronic controller of the IS machine in the modified apparatus of Brown, because such modification would enable automation of the ignition cycles, as taught by Tischler, and hence, the lubrication cycles in the modified apparatus.

Regarding claim 15, Tischler further discloses said gas plenum **14** (Figure) is formed by a metal/screening cover or screening areas **15** (translation page 3, fourth paragraph; page 4, third paragraph), substantially the recited "shield and shelf combination".

Regarding claim 22, Brown discloses the head assembly (elements **30, 32, 34, 36**) is comprised of a main gas block having a support portion and header (defined by horizontal bar **32** and horizontal spray bar **30**, respectively), the support portion **32** having at least two connections (inlets **71, 81**) adapted to be connected to supply conduits (horizontal bores **72, 82**), the first and second connections **71, 81** connected to respective conduits **72, 82** internal to said support section **32** and said header **30**, for supplying the at least one nozzle (i.e., outlet **88**) positioned in a hole in said header **30**. (column 4, lines 23-41; FIG. 1-4).

Regarding claims 24 and 25, as modified by Tischler (Figure) and commented above, the modified apparatus further comprises a shield (screening cover **15**) substantially surrounding a gas exit end of the nozzle, wherein a spark igniter **10** positioned in a side of the shield.

Regarding claims 27-29, the same comments with respect Brown apply (see claims 9-12).

Regarding claim 30, as modified by Nicolas and Tischler above, the apparatus comprises an ignition source. Additionally, Tischler (Figure; translation page 3, last paragraph to page 4, fourth paragraph) teaches an electronic controller (control unit **20**) adapted to initiate the flow of

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the supply gases by operating the on-off valves 8 and 9 on supply lines 4 and 5, respectively, and cause an electrical signal (i.e., dashed electrical lines) to the spark igniter (ignition device/spark plug 10) and ignite the gas mixture for generating a flame, at a set point in time. It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide an electronic controller to the modified apparatus of Brown because the electronic controller would enable automation of the system, as taught by Tischler.

6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (U.S. 4,604,120) in view of Nicolas et al. (U.S. 4,412,974) and Tischler (DE 43 11 773), as applied to claim 1 above, and further in view of Tillman (U.S. 4,418,049).

The collective teachings of Brown, Nicolas and Tischler are silent as to whether the nozzle may be adapted to be removed and replaced by an identical or a non-identical nozzle. Tillman teaches that in carbon black reactors, "it is frequently desirable to change the nozzle through which make oil is emitted into the reaction flow passage, since the properties of the carbon black being produced can thus be varied," (column 1, lines 10-20). Therefore, it would have been an obvious design choice for one of ordinary skill in the art at the time the invention was made to provide an easily interchangeable nozzle in the modified apparatus of Brown, in order to allow for property variation of the carbon black, as taught by Tillman.

7. Claims 6, 13, 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (U.S. 4,604,120) in view of Nicolas et al. (U.S. 4,412,974) and Tischler (DE 43 11 773), as applied to claims 1, 4, 5, 22, 24 and 25 above, and further in view of Brown (U.S. 4,409,010).

The collective teachings of Brown '120, Nicolas and Tischler are silent as to a third gas supply connection for supplying a purge gas to the apparatus, for purging the first and/or second

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injectors. Brown '010 (column 3, lines 5-12) teaches an apparatus for applying lubricant to molds in a glassware forming machine, wherein, "it may be advantageous to arrange that the delivery of air to each mixing point commences somewhat before the delivery of lubricant so that the latter is discharged into an established air stream." Likewise, "it may be advantageous for the delivery of air to continue for a short time after the delivery of lubricant, so as to blow out any lubricant collected on the walls of the mixing zone and/or mixture flow path, and which might otherwise subsequently drip." Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide a means for supplying purge gas to the modified apparatus of Brown '120, for the reasons taught by Brown '010.

8. Claims 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (U.S. 4,604,120) in view of Nicolas et al. (U.S. 4,412,974) and Tischler (DE 43 11 773), as applied to claim 1 above, and further in view Shepherd (U.S. 3,092,166).

Regarding claims 17 and 19-21, the nozzle as modified by Nicolas above comprises a substantially hollow, substantially cylindrical body **2** having a connection end (i.e., the top end as illustrated) and a gas exit end (front part **8**) defining a central orifice **9** and at least one non-central orifice **16/16'** (FIG. 1, 2). However, the collective teachings of Brown, Nicolas and Tischler are silent as to a nozzle comprising the particular structural elements of the instantly recited nozzle. Shepherd (FIG. 1-3; column 2, lines 31-65) teaches a nozzle for injecting a liquid fuel in combination with a flame of an oxygen-fuel gas mixture, wherein the nozzle comprises:

a) a substantially hollow, substantially cylindrical body (housing **10**) having a connection end (which receives end wall **12**) and a gas exit end, the gas exit end being defined by an end cap (forward partition plate **20**) having a central orifice and at least one/three non-central orifice

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therein (see FIG. 2), wherein the central orifice has positioned therein a hollow tube **56** having a first end extending into the central orifice at a distance of about 0 cm (i.e., flush; see FIG. 1, 3) and a second end extending into the body **10**, being supported by and extending through a support plate (rearward partition plate **22**) positioned in an interior location of the body **10** adapted to be mated with a sealing member (end wall **12** with O-ring **26**);

- b) the support plate **22** positioned to divide the interior of body **10** into first and second chambers (i.e., ahead of and behind plate **22**, respectively; column 2, lines 50-58); the first chamber defined by plate **22**, cap **20** and a first interior surface of body, and the second chamber defined by plate **22**, sealing member **12/16** and a second interior surface of body; and
- c) the body **10** having an orifice (threaded opening **32**) extending from an exterior surface to the first chamber, and an orifice (two threaded inlet openings **30**) extending from the exterior surface to the second chamber (column 2, lines 58-65).

It would have been an obvious design choice for one of ordinary skill in the art at the time the invention was made to substitute the nozzle of Shepherd for the nozzle in the modified apparatus of Brown, on the basis of suitability for the intended use, since both nozzles perform a substantially identical function, and it has been held that the substitution of known equivalent structures involves only ordinary skill in the art. *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958).

Regarding claim 18, the sealing member **12/16** of the nozzle, as modified by Shepherd above, comprises a threaded bolt having male threads adapted to mate with female threads on the second interior surface of the body **10**. (i.e., threads **14**; see Figure 1, column 2, lines 31-35).

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Conclusion

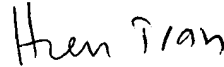
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Leung whose telephone number is 703-305-4951.

The examiner can normally be reached on 8:30 am - 5:30 pm M-F, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola can be reached on 703-308-6824. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jennifer A. Leung
September 17, 2003



**HIEN TRAN
PRIMARY EXAMINER**